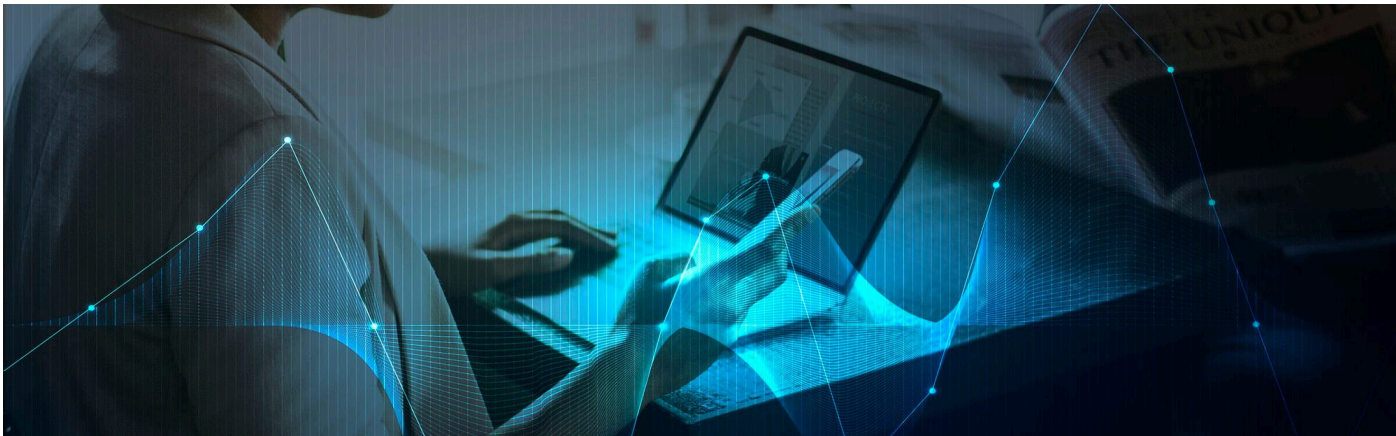


# INTECH Helped a Leading Port Operator Boost Cargo Efficiency by 25% with Power BI



## Summary

A leading private port operator in India faced challenges in managing complex logistics data across multiple facilities. The absence of a unified system for tracking performance metrics slowed down timely and data-driven decision making.

INTECH delivered a customized Power BI dashboard to centralize real-time insights, enabling faster decision-making and optimizing cargo handling processes. As a result, the client achieved a 25% increase in operational efficiency and faster cargo dispatch.

## About the Client

The client is a prominent player in India's port and logistics sector, recognized as the largest private port operator in the country. With a presence at multiple strategic locations across India, they play a vital role in connecting the country to global markets.

Their extensive network of ports, terminals, and logistics facilities positions the client as a key player in the global trade ecosystem.

## Client Challenges: Managing Disconnected Logistics Data

As one of India's busiest ports, the client handled thousands of cargo containers daily across multiple terminals. However, as operations scaled, so did the complexity of managing data and performance across departments. The lack of centralized visibility made it increasingly difficult to meet logistical demands efficiently.

Key challenges included:

### Fragmented Data Sources

Operational data was spread across multiple systems, making it difficult to track cargo movements, monitor KPIs, or access consistent performance metrics. This slowed down cross-functional coordination and increased manual effort.

### No Real-Time Visibility

Without real-time dashboards or automated reporting, teams relied on outdated spreadsheets and delayed reports. This made it hard to respond quickly to shifting cargo volumes or unexpected bottlenecks.

### Operational Inefficiencies and Rising Costs

The lack of unified reporting led to slower cargo dispatch, reduced throughput, and longer turnaround times. These delays drove up operational costs and impacted service quality.

The client needed a solution to centralize all operational data and streamline the flow of information across departments.

That is when INTECH provided a solution.

## INTECH's Solution: A Customized Power BI Dashboard

To overcome the client's fragmented reporting and reactive decision-making, INTECH built a customized Power BI dashboard.

This solution centralized data from various sources, transforming it into actionable insights. Built with scalability in mind, it allowed for easy adjustments as future data requirements evolved.

Key features include:

### Real-Time Data Insights

- ▶ Previously, data was spread across multiple systems, forcing teams to piece together spreadsheets and reports from various terminals.
- ▶ INTECH's dashboard brought all that data, including berth occupancy, crane usage, and container handling rates, into one real-time platform. This centralized dashboard removed blind spots, reduced miscommunication, and gave every department access to live insights.

### Customizable KPIs

- ▶ The solution replaced static monthly reports with live, interactive dashboards that updated instantly. It became easier to track key metrics such as crane turnaround time, berth utilization, and vessel delay trends in the solution. This allowed teams to respond proactively to congestion issues, adjust cargo handling strategies on the fly, and avoid missed SLAs.

### Scalable Architecture

- ▶ INTECH ensured the dashboard could grow alongside the port's evolving needs. The system scaled with new data points without impacting its performance. We made the interface user-friendly, enabling each team member to access high-level summaries and drill down into granular trends without requiring any coding or complex tools.

### Measurable Efficiency Across Operations

- ▶ With one real-time dashboard at the center of operations, the client drastically reduced the time spent pulling reports, cross-verifying numbers, and coordinating between departments. Manual data tasks that once took hours now take minutes.
- ▶ More importantly, teams could act on accurate, up-to-date information, reducing cargo delays, avoiding bottlenecks, and improving overall terminal throughput.

The provided solution was all set for its successful implementation.

## Implementation Process

INTECH implemented the solution in multiple stages to ensure seamless integration and optimal performance.

Here are the steps involved in the implementation process:

- 1 Discovery and Customization**  
INTECH collaborated closely with the client to understand their operational needs and goals. This helped us identify essential KPIs and relevant data sources for the dashboard. We also made sure the solution captured all the necessary data points, providing a complete and customized view of the client's operations.
- 2 Dashboard Development**  
We developed an interactive Power BI dashboard that provided real-time insights, allowing the visualization and tracking of key metrics. We added advanced data visualization features to simplify complex datasets for quick and data-driven decision-making.
- 3 Deployment & Training**  
INTECH deployed the dashboard using Power BI Report Server for secure, on-premise reporting. This setup provided a reliable, scalable solution aligned with data security requirements. We also provided comprehensive training sessions on dashboard features and data interpretation to ensure smooth adoption.
- 4 Continuous Optimization and Support**  
INTECH's engagement didn't stop at deployment. We worked closely with the client post-launch to monitor dashboard performance, respond to evolving operational needs, and ensure continued alignment with business goals.

This ongoing support ensured the solution remained relevant and effective in a dynamic market.

## Key Outcomes

INTECH's real-time reporting platform gave terminal teams full visibility into cargo movements, equipment use, and turnaround times, all in one place.

With this transparency, the teams could respond faster, catch bottlenecks early, and refine day-to-day operations.

Here are the key outcomes:

**25% Increase in Operational Efficiency:**

Real-time insights help the client optimize cargo handling, improving resource utilization and reducing bottlenecks.

**20% Faster Cargo Dispatch:** Real-time visibility into cargo status and potential delays allows for immediate issue resolution, reducing dispatch times and boosting throughput.

**15% Improvement in KPI Tracking:**

Customizable reports provide complete visibility into operations, enabling faster, more accurate decision-making.

## Tools and Technologies Used

INTECH leveraged a combination of advanced tools and cutting-edge technologies to build a comprehensive solution optimizing cargo management, including:

- ✦ **Power BI Desktop:** Used to design and build interactive dashboards and visual reports. It provides real-time visibility into cargo flow, crane operations, and key logistics KPIs.
- ✦ **Power BI Report Server:** Used for deploying on-premise, secure report distribution. This ensures compliance with internal data governance policies while maintaining high availability.
- ✦ **Talend Data Integration:** A powerful ETL platform that extracts, transforms, and loads data from multiple sources into a centralized system. It ensures clean, structured data for accurate reporting.
- ✦ **PostgreSQL:** Used to store and manage operational data. It supports complex queries and multi-dimensional analysis, enhancing the dashboard's overall performance.